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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,687	11/25/2003	Philip Victor Harman	006020.00027	3049

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EXAMINER

RAO, ANAND SHASHIKANT

ART UNIT	PAPER NUMBER
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2621

MAIL DATE	DELIVERY MODE
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05/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/720,687	Applicant(s) HARMAN ET AL.	
	Examiner Andy S. Rao	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/24/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8-10 and 12 is/are rejected.
- 7) ☒ Claim(s) 4-7, 11 and 13-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/25/03</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Specification

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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3. Claims 1-3, 8-10, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Jones et al., (hereinafter referred to as "Jones").

Jones discloses a method of generating images suitable for use with a multi-view stereoscopic display including the (Jones: figures 5-7) steps of: intercepting data passed from an application to an application programming interface (Jones: column 12, lines 30-35), said data representing a scene or object to be displayed on said display (Jones: column 6, lines 5-10), and wherein said data is intercepted by looking up an internal symbol table to determine a memory location for an application program interface function (Jones: column 14, lines 55-65), storing a modified library into memory, and redirecting application commands to said memory location to said modified library (Jones: column 12, lines 30-35); processing said data to render multiple views of said scene or object (Jones: column 14, lines 5-15); creating modified data by modifying said intercepted data to represent said multiple views (Jones: column 16, lines 50-65); passing said modified data to said application programming interface (Jones: column 12, lines 25-35), as in claim 1.

Regarding claim 2, Jones discloses wherein processing of said data includes the steps of: identifying replayable sequences of commands and processing said commands with valid sequences to minimize command flushing stages required (Jones: column 11, lines 65-67; column 12, lines 1-4), as in the claim.

Regarding claim 3, Jones discloses wherein said multiple views are composed into a composite image (Jones: column 16, lines 50-65), as in the claim.

Jones discloses a system for creating images suitable for use with a multi-view autostereoscopic display (Jones: column 8, lines 25-35) including: a capture means for

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intercepting 3D geometric primitives and associated characteristics passed between an application and an application programming interface (Jones: column 12, lines 30-35); a view generation means for imaging said 3D geometric primitives and said associated characteristics from multiple distinct viewing positions (Jones: column 16, lines 50-65); a mask calculation means for determining a relative contribution of each view based on characteristics of an associated lenticular lens array (Jones: column 16, lines 30-35); and an accumulation means for combining said views with said masks to generate a composite 3D image (Jones: column 17, lines 25-47), as in claim 8.

Regarding claim 9, Jones discloses capture means intercepts said primitives and associated characteristics by: looking up an internal symbol table to determine a memory location for an application program interface function (Jones: column 12, lines 30-35); storing a modified library into memory (Jones: column 14, lines 50-60); and redirecting application commands to said memory location to said modified library (Jones: column 12, lines 1-12), as in the claim.

Regarding claim 10, Jones discloses wherein said accumulation means includes: a view calculator to determine which said view is assigned to each pixel of said 3D image (Jones: column 16, lines 15-35).

Regarding claim 12, Jones discloses wherein said mask calculation means determines a fractional proportion of each said view for each pixel of said 3D image (Jones: column 16, lines 20-30), as in the claim.

Allowable Subject Matter

4. Claims 4-7, 11, 13-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The mathematical equations stated in these claims are not anticipated nor obvious over the art of record, and modification to the claims as indicated, and cancellation of rejected claims 1-3, 8-10, and 12 would put the application in a condition for allowance.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ritchey discloses a panoramic based virtual reality/telepresence audio/visual system and method. Takemoto discloses a stereoscopic image processing and display system. Ahn discloses a method and apparatus for generating and recovering 3D compression data.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

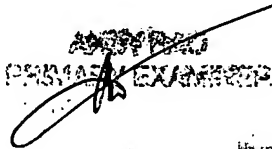
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao
Primary Examiner
Art Unit 2621

asr
May 10, 2007


PRIMARY EXAMINER